

AMENDMENTS TO THE SPECIFICATION

Please replace the second full paragraph on page 12 with the following amended replacement paragraph.

In the embodiment of FIG. 3, the number of holes H in the micro-plate 100 is significantly reduced over the micro-plate described in the '152 patent. Each separation channel 500 of the illustrative embodiment requires only one opening forming a fluid interface port 17 to allow introduction and separation of a sample and the micro-plate 100 further includes openings for the cathodes and for the anode. Conversely, the number of holes in the micro-plate 10 of the '152 patent is $5N/4+7$, where N is equal to the number of samples to be analyzed, due to the increased number of holes required for sample introduction via the injector 11. The reduction in holes formed in the micro-plate 100 provided by the illustrative embodiment increases manufacturing efficiency and further decreases the potential for defects in the production of micro-plates, as caused by mechanical stress associated with the drilling process. Furthermore, multiplexing the cathode 120 and anode 180 with a plurality of separation channels 500 allow a greater number of separation channels 500 to fit in a single substrate. The reduced size of the fluid interface port 17 also provides a more compact structure, allows even greater number of separation channels 500 to fit on a single substrate. The above advantages are also applicable when the holes are formed by a molding process or a bonding process in lieu of the drilling process.